Mr. David Keith
Project Coordinator
Anchor QEA, LLC
614 Magnolia Avenue
Ocean Springs, MS 39654

RE: Draft Sampling and Analysis Plan: Surface Water Study (SAP)
San Jacinto River Waste Pits Superfund Site, Harris County, Texas
Unilateral Administrative Order, CERCLA Docket No. 06-03-10

Dear Mr. Keith:

The Environmental Protection Agency (EPA) and other agencies have performed reviews of the above referenced document dated November 20, 2015. The enclosed comments shall be incorporated in the Final SAP and copies provided for approval within 30 days of receipt of this letter.

If you have any questions, please contact me at (214) 665-8318, or send an e-mail message to miller.garyg@epa.gov.

Sincerely yours,

Gary Miller
Remediation Project Manager

Enclosure

cc: Satya Dwivedula (TCEQ)
Bob Allen (Harris County)
Linda Henry (Port of Houston Authority)
Angela Sunley (Natural Resource Damage Assessment Trustee Program, TGLO)

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Comments
Draft Sampling and Analysis Plan: Surface Water Study (SAP), dated November 20, 2015

1. (Section 1.4.2.1, p. 1-9): The SAP stated that the Texas Surface Water Quality Standard for TEQ (0.0797 pg/L) was promulgated in 2011. The SAP shall note that this standard was adopted by the TCEQ on February 12, 2014, and it was effective beginning March 6, 2014.
2. (Section 1.4.2.4, p. 1-13): The SAP discusses the modeling tracer study results based on conditions in a low flow period in 1990. The SAP shall also include a discussion of the uncertainty regarding the model results as well as an assessment of the dilution that would occur in the San Jacinto River within the San Jacinto to River Waste Pits Site (Site) Preliminary Site Perimeter based on the range of flow conditions that have occurred during the past year. The statement regarding the impact of the Houston Ship Channel discharge, located south of the Site, on the Site shall be modified to consider the typical range of flow conditions in the San Jacinto River.
3. (Section 1.6, p. 1-16): This section discusses the barging operations of the San Jacinto River Fleet. This section shall also note the number of additional barging operators that use the San Jacinto River in the area of the Site.
4. (Section 1.9.1, p. 1-20): According to the SAP, the goals of the study include evaluation of the effectiveness of the conditions south of I-10 in preventing the release of dioxins and furans from the waste into the water column. It is not clear how the sampling locations provided in Figure 1-9 would adequately delineate areas south of I-10 on the Old River and the San Jacinto River downstream. The SAP shall provide additional information regarding the sampling location rationale, and shall include additional sample locations in/near the Old River.
5. The main document describes a procedure for high-volume sampling of PCDD/F congeners in dissolved and suspended phases using glass fiber filters and XAD-2 resin, consistent with the historical TCEQ TMDL sampling. The attached SOP SW-17 for "High-volume surface water sampling for analysis of organic compounds with low detection limits", however, describes sampling using a vortex separator and PUF cartridge. Another attached SOP SW-04 describes "Surface water sampling using a peristaltic pump." It is not clear if the SAP intends to use this SOP for collecting the water before passing through the glass fiber filters and XAD-2 resin. If so, this would result in substantial loss of the PCDD/Fs prior to reaching the XAD-2 resin, with partial loss of the suspended phase PCDD/Fs through desorption. In our experience regarding sampling ultra-trace hydrophobic organic compounds, it is very important to minimize the surface area to volume ratio of the sampling column, and the exposure time of water to those surfaces, between the water body and the filter/XAD-2 resin. The SAP shall provide an updated SOP that resolves the sampling approach for PCDD/F congeners.
6. It is possible that the flow and tidal conditions during sampling could impact the interpretation of the results. As a result, all samples shall be collected under low flow river conditions on a falling tide and outside the influence of any bayous, tributaries or outfalls that may contribute contaminants of concern. It is understood that this may be difficult to achieve in practice however, at a minimum, the samples at SJSW004 (11193) and SJSW001 (11197) shall be collected under these conditions with tidal flow direction and velocity estimated and recorded periodically during sample collection.